



AXE

F A C T S

The INFO Source for GR Users

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Your GR-30 – How to Make It Sound ‘Real’ Practical Tips for Making Authentic Guitar Synthesizer Sounds



You finally made the great leap into the world of digital synthesizers by purchasing a Roland GR-30 Guitar Synthesizer. Congratulations! You got it home, hooked it up, and all these cool sounds came out: piano, saxes, organs, etc. Now you can't wait to record! But how do you make it sound like a real piano player is playing? The sax sound is great, but what would a real sax player do?

Having the sounds is just the beginning. In this article, Axe Facts takes a look at some specific tips and tricks you can use to make your synth sound like the real thing.

Piano

Piano players tend to spread chords out more than guitar players, often using both hands to play them over several octaves. Piano players also accompany themselves when they solo. The left hand will play and hold chords while the right hand takes the solo. Here are some ways to imitate playing the piano with the GR-30.



1. Transpose the lower strings down an octave. By doing this, you can spread chords out in a more piano-like manner.
2. Don't strum. Piano players tend to strike the keys at the same time when they play a chord. Guitarists tend to strum, which creates slight time delays between the notes of a chord. Try playing piano sounds with your fingers.
3. Set the Chromatic mode to "On 2" or "On 3." This may seem obvious, but pianos can't bend notes. At all. Ever.
4. Set the Hold Type parameter to "dPr." Piano players ride the pedals a lot when they play to make certain notes ring out. By using this Hold setting and riding the pedal the same way, you can imitate this piano characteristic with your GR-30.
5. This one is tricky, but very effective.
 - a. Assign the same piano sound to both Tones.
 - b. Set the Hold Type to "d.-1." This will damper hold the first Tone, allowing you to play the second Tone at the same time.
 - c. Play some chords. Then by using the Hold Pedal to sustain them, you can play a solo over the chords with the same sound, imitating the piano player's left hand chording and right hand soloing.

Organ

Much of what is true for pianos is true for organs. Several of the tips for the piano are also effective for realistic organ playing. Here are three more tips just for making your guitar sound like an organ.



1. Organ players tend not to play huge, ten finger chords. Try playing chords with just two or three notes. With an organ, often less is more.
2. Use the same steps in Tip 4 for the piano. However, instead of setting it to damper hold, set Hold Type to "s-1" for sustain, which is more characteristic of organs, rather than the "d-1" setting, which is more characteristic of piano.
3. Organ players will often sustain a high note while soloing. You can imitate this with the Hold Type set to "s-1" or "Str," which will hold whatever string(s) you play. This allows you to play every other string but the one(s) being held.

(Continued as "Authentic Guitar Synth Sounds" on page 3)

A Brief History of Roland GR Guitar Synthesis

Part 4

GM-70 & GR-50 MIDI MONSTERS

Has MIDI changed the world of music? You bet, especially in the world of keyboards. Did it leave guitar players behind? No way; Roland saw to that back in 1987 with the introduction of the GM-70 MIDI Converter. The GM-70 represents some of the most significant technological advances found in any of Roland's guitar synthesizer products. And it was the first product to truly give guitarists all the power of musical expression MIDI has to offer.



The GM-70 was the first Roland guitar converter that did not have any sounds of its own. Instead, it was designed specifically to allow guitar players to access the rapidly exploding world of MIDI. To this day, its power as a MIDI converter has never been equaled. The GM-70 could generate 14 MIDI channels at one time from one guitar, organizing huge amounts of MIDI data into four "branches," with up to six MIDI channels each. It could then store in its enormous memory the velocity curve, transposition, program change numbers, MIDI Mode information, and other data for each branch, and recall 128 Patches of this data at the push of a button.

What impressed guitar players most of all about the GM-70, however, was that it was fast—very, very fast. And incredibly accurate. No more "glitches," no more "some of the notes, some of the time." It followed the nuances of guitar technique like bends, hammer-ons, and string mutes amazingly well. Roland had found a way to greatly improve pitch recognition technology, and these improvements were what made the GM-70's performance such a leap forward.

Another performance leap was the new pickup for the GM-70: the GK-1 Synthesizer Driver. The GK-1 was designed to be surface-mounted on a player's guitar, with separate controls for the onboard synth and a Blend control for both the synth and guitar levels. With the GM-70 and GK-1, not only could guitarists access modern synthesis and the potential of MIDI, but they could do it with their own guitar. They no longer had to buy a separate instrument just to play a guitar synth; they could simply mount the GK-1 on whatever guitar they wanted to use, and they were ready to go. Roland's ten-year commitment to guitar synthesis was paying off, and guitar players worldwide began to dive in to the world of synthesis and MIDI like never before.

Technology was exploding in other areas of electronic musical instruments as well. Digital synthesizers were developing at an incredible pace, and with the introduction of Roland's famed D-50 Linear Arithmetic Synthesizer, the world of digital musical instruments changed forever. Using then-sophisticated technologies, the D-50 and the subsequent Roland D-Series synths created sounds that had never been heard before and opened the doors for a whole new generation of instruments. The rackmount sound module in this revolutionary series of digital synths was the Roland D-110. Its sound engine found its way into the next Roland guitar synthesizer: the GR-50.



The GR-50 was a single rack space guitar synthesizer which combined much of the awesome MIDI processing power of the GM-70 with the sound engine of the D-110 to create the fastest and most complex guitar synth ever. Not only could the GR-50 generate 12 channels of MIDI from a single guitar, but like the GM-70, it had a huge memory for programming and organizing MIDI data. By utilizing the superior pitch recognition of the GM-70 and by taking the guitar signal directly to the onboard synth's sound generator, the GR-50

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was the fastest, most accurate, and most natural-playing guitar synth yet created.

It was also one of the most complex. The Linear Arithmetic synthesizer used in the GR-50 had up to 240 programmable parameters per Tone, which was great for sound designers who wanted to shape every element of the sound. But with a small editing screen and few buttons, operating the GR-50 was a challenge at best, and few owners of GR-50's ever took full advantage of its incredible potential and versatility.

The introduction of the GR-50 also saw the re-design of the GK pickup. The new GK-2 offered several improvements. It was considerably smaller than its predecessor, the GK-1, so it took up less room on the guitar. Its controls were reconfigured; instead of tiny knobs, it had buttons and a large 3-position switch for selecting guitar, synth, or both, which made it far easier to use. Instead of the bulky 24-pin connector, the GK-2 used a 13-pin wiring system which has become the standard for divided pickup systems. Even today, a GK-2 can be used with new guitar synth systems.

The GR-50 was the first product to truly give guitarists complete and accurate control and playability of both internal and external synthesizers. However, many players wanted to be able to realistically emulate the sounds of acoustic instruments—something beyond the capacities of the Linear Arithmetic synths. With the development of Roland's RS-PCM sample-playback technology, the next generation of guitar synths could do the job.

Next time, two on the floor: the GR-1 and the GR-09.

Authentic Guitar Synth Sounds (continued from page 1)

Saxophone

Saxophones can only play one note at a time. Here are some tips for using your GR-30 to become a sax player.

1. Don't forget sax players have to breathe! Put an occasional gap or space for a breath in your musical lines. It sometimes helps to exhale as you practice wind instrument lines - when you need a breath, it'll help you remember that the wind player has to sneak one in somewhere.
2. Sax players play a lot of grace notes and tend to vary the way they articulate.
A good way to imitate this is to slide into notes from time to time and to play with a good amount of dynamics. The saxophone is a very dynamic, expressive instrument. Play some notes very soft, others much harder.
3. Stay within a range of about two octaves, and try to play around scales. Sax players tend not to jump back and forth over several octaves between notes.
4. The sound of a sax can change drastically depending on how loud the sax is played.
 - a) Set the Wah Type parameter to "br1."
 - b) Use the Wah Pedal on higher or louder notes to imitate the way a sax player would sound playing a similar passage.



Strings

Strings, such as violins and cellos, have different sound characteristics than guitars. Their notes tend to get louder, then decay, while guitar notes are usually the loudest at the initial attack.

1. Many synth string sounds are slower than guitar players like. Here's how you can tighten up a string solo with a typical string sound.
 - a) Turn the Edit Target knob to "1st TONE."
 - b) Turn the Parameter Select knob to "B."
 - c) Press VALUE- to set the attack for to a lower number. It is at 0, so change it to a minus number. This will speed up the attack of the sound and make string solos easier to imitate.

Axe Facts would like to thank Rick Vitallo, guitar synthesist extraordinaire, and Gary Cook, Roland's guitar clinician, for some of these tips and tricks.

the guitar sound back to the synth's Guitar Return. This way both the synth and the processed guitar sound will come from the main outs of the synth. And by using a clean sound on your amp, you can use it like a small PA for both the guitar and the synth.

2. Many modern guitar amps have an effects loop. If you connect the synth's output to the effects return of your amp, you are bypassing the preamp and going straight to the power section of the amp. In many amps, the output section has a better frequency response than the preamp, so the amp will be able to capture more of the synth's sound. Plus, this way you can use the amp's distortion characteristics for the guitar without distorting the synth.

Roland's BC-60 BluesCube is a great for this. It's a killer amp for guitar tones, and has an effects loop with a mix control, so you can also adjust the level of the synth.



Roland BC-60/310

3. Use a guitar amp with synth-friendly features, like two separate channels (dirty channel for the guitar, clean channel for the synth) or a stereo effects return. Having two separate channels used to be fairly common in guitar amps, but now there are only a few on the market with this useful feature. Such guitar amps are better for multi-purpose use, and often have wider frequency responses than others, making them suitable for synths and guitars.

The famous Roland JC-120, for example, has all these features and more: two separate channels, an unusually wide and flat frequency response (keyboard and guitar players have been using this amp for years), and a stereo effects return, in case you want to bring the synth into the amp in stereo.



Roland JC-120



Roland KC-500

Scenario #2: Using a Keyboard Amp

Keyboard amps are designed for the kind of frequency response that most modern synthesizers, including guitar synthesizers, have. Better ones have cross-overs, so they can direct the sound to separate speakers and tweeters, and most keyboard amps have multiple channels, for stereo synths or several different synths at once. They are a great way to get good amplification of synthesizers, but guitars don't always benefit from the features of a keyboard amp.

If you only use a keyboard amp, process your guitar sound before it hits the amp. This way the keyboard amp can function like a portable PA, and you can deal with the guitar sound as if the guitar was going direct. If this is the way you want to go, Roland makes a terrific keyboard amp, the KC-500, which has all the features a guitar synth player needs: 150 watts, a separate 15-inch woofer and horn driver for highs, four stereo inputs in case you are using multiple synths, and 3-band EQ on the output section.

Scenario #3: Using a PA

A good PA is great for amplifying your synth. It has the necessary frequency response and more than enough power to carry the synth. You could even mic your guitar amp and get it into the PA. This is the way concert sound is usually done—everything goes to the board. However, amps are still used on-stage for tone. The synths are fed to the monitors, so you can hear them, but often they are amplified direct.

Scenario #4: Combinations

In a perfect world, you could have the best guitar amp for the guitar sounds, and the best keyboard amp for the guitar synth sounds. In real life, two amps, one for the guitar and one for the synth, is the most versatile way to go. This way, the guitar can get all the tone creation from the guitar amp that it wants, and the synth can get all the extended frequency response and clarity it needs from the keyboard amp.



We love reader questions here at Axe Facts. In fact, we love them so much we send a **FREE T-shirt to the reader with the best question each issue! So if you've got a question or comment, or if you want to stump the experts (these are our favorites), please write to us at Roland Corp. U.S., 7200 Dominion Circle, Los Angeles, CA 90040 Attn: Axe Facts.**

Q. I have a GR-1 Guitar Synthesizer. When I use it as a sound module from my computer, I don't get the same sound as when I play it. What's wrong?

Chances are, the program number you are sending out via MIDI to your computer is not the one you need in order to playback the sound you want to hear. When you use the GR-1, or any other MIDI synthesizer, you need to send the program number that corresponds to the sound you want to use.

In the case of the GR-1, this number is not necessarily being sent when you play that sound. Also remember that different Patches on your GR-1 can (and will) send different program numbers, and that you can even send different numbers from different strings. Here are the steps to follow to get the sound you want.

1. From Play mode, press PATCH.
2. Press the right Parameter button until you see "PG CHG" in the display.
3. Press ENTER.

Use the Value buttons to enter the program number of the sound you want to playback. Check your GR-1 Owner's Manual for the correct program numbers.

Q. I know this isn't a guitar synth question, but here it goes. I've got a whole bunch of BOSS pedals. Where does the compressor go in the signal path—before or after the distortion?

Generally speaking, always put the compressor before the distortion in the signal path. This will keep noise to a minimum and will give you more crunch from your distortion.

Q. Why does the GR-30 Guitar Synthesizer sound different from the GR-09 Guitar Synthesizer?

The GR-30 has a new "synth engine" that's similar to the powerful Roland JV-Series synths and has all new sounds. The engine in the GR-09 is based on the earlier Roland SC synths.

Q. Sometimes when I finger-pick certain patches on my GR-30, they don't track quite right. Is there anything I can do about this?

Absolutely! If you know that you're going to change the way you play in a certain Patch, it's a good idea to set the "Play Feel" for the way you want to play. This will tell the GR-30 what dynamics to look for from the guitar. Here's how you set it for finger-picking.

1. Turn the Edit Target knob to "Play Feel."
2. Press EDIT/PLAY.
3. Using the Value + and - buttons, select "Fin."
4. Turn the Parameter Select knob to "Write Patch Yes/No."
5. Press VALUE + and VALUE- simultaneously to write this into the Patch memory.



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Amplifying Guitar Synths

The question comes to us in many forms: "Why doesn't my guitar synth sound right in my amp?" "My amp only has one channel. How can I use it for my guitar and my synth at the same time?" "If I get a synth amp, can I play my guitar through it?" Sometimes it's just, "HEEEEEELP!" Some guitar players may be confused about the best way to amplify their guitar synths, but help is on the way. Let's examine three different scenarios...

Scenario #1: Using a Guitar Amp

In general, synthesizers have much wider frequency responses than guitars, so they require different kinds of amplification. Guitar amps are designed for guitar sound, and good ones can do wonders for your tone. But the same characteristics that make them sound so good with your guitar—like rich harmonic distortion, fat mids, and chunky bass—will make your synthesizer sound like it's coming from an old AM radio somewhere down the street. Also, many modern guitar amps have only one input, which makes them even more difficult to use with both a guitar and a synth. However, all is not lost. Here are some simple solutions.



Roland
BC-60

1. Use the synth Mono In, run the guitar sound from the Guitar Out of the synth to a guitar processor, then bring the (Continued as "Amplifying Guitar Synths" on page 4)